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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,118	05/31/2001	Mary Lucille DeLucia	KCC-14,859	9826
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PAULEY PETERSEN & ERICKSON 2800 WEST HIGGINS ROAD HOFFMAN ESTATES, IL 60195			EXAMINER ROSSI, JESSICA	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/871,118

Applicant(s)

DELUCIA ET AL.

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/23/04, Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 24-41 is/are pending in the application.
- 4a) Of the above claim(s) 30-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 24-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated 8/23/04. Claims 12-13 and 15-23 were cancelled. Claims 1-10 and 24-41 are pending, but claims 30-41 remain non-elected without traverse as set forth in paragraph 1 of the office action dated 6/4/03.
2. The rejection of claims 5 and 27 under 35 U.S.C. 102(b) as being anticipated by Thomas et al. (US 3597299; of record), as set forth in paragraph 8 of the previous office action, has been withdrawn in light of the added limitation pertaining to the second layer comprising a film.
3. The rejection of claims 5 and 27 under 35 U.S.C. 102(e) as being anticipated by Bevins et al. (US 6491777; of record), as set forth in paragraph 10 of the previous office action, has been withdrawn in light of the added limitation pertaining to the second layer comprising a film.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claims 1-10 and 24-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claims 1, 5-6, 24 and 27, the present specification does not have support for shrinking at least one of the first and second layers to produce the structured composite

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material having a pore size gradient in a z-direction wherein the first layer moves in a plane generally perpendicular to the composite material to form a plurality of fiber loop pores and the second layer forms a plurality of pores smaller than the fiber loops **when both the first and second layers have shrinkage extents and at least one of the first and second layers is shrunk.**

The examiner directs Applicant to the portion of the specification (p. 22, line 5 – p. 23, line 10), which Applicant relied on in paragraph 4 on p. 12 of the remarks to show support for the new limitations. Here the specification clearly states that a composite having the newly claimed characteristics is formed when at least one **non-shrinkable first layer** is bonded to at least one shrinkable second layer followed by shrinking the second layer. One reading the entire specification as a whole would have appreciated that the present invention defines a layer which has a “shrinkage extent” as one that can be shrunk to some degree (p. 11, lines 5-10); therefore one reading the entire specification as a whole would have readily appreciated that a “non-shrinkable” layer does not have a shrinkage extent.

The examiner would like to point out that it appears the present specification discloses two mutually exclusive species wherein the composite can be made by A) bonding two layers having different shrinkage extents (p. 14, lines 6-14; p. 17, lines 6-16; p. 19, line 21 – p. 20, line 11) or by B) bonding at least one non-shrinkable layer to at least one shrinkable layer (p. 22, lines 5 – 17). If Applicant attempts to overcome this new matter rejection by amending the claims to state that the first layer is non-shrinkable, the examiner will have to hold any such claims as withdrawn based on election by original presentation, since claims only pertaining to Species A have been examined throughout prosecution thus far (MPEP 821.03).

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
7. Claims 1-4, 6-8, and 24-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Lorenzi et al. (US 6217889).

**It is noted the following rejections address the limitations identified as new matter in paragraph 5 above.*

With respect to claim 1, Lorenzi is directed to a method for producing a structured composite material (“water insoluble substrate”) for accommodating passage of fluids (column 1, lines 11-12; column 4, lines 3-4). The reference teaches forming a first non-woven web layer (creped, non-woven fibrous web) having a first shrinkage extent (column 4, lines 2-4 and 22-23 and 32-33 and 49-62; column 5, lines 38-52; note fibers comprising non-woven and method for forming non-woven are same as that of present invention at p. 15, lines 3-19). The reference teaches forming a second layer (scrim) having a second shrinkage extent different from the first shrinkage extent and comprising a film (column 6, lines 53-66; note film materials are same as those for film of present invention at p. 18, line 18 – p. 19, line 2). The reference teaches spot-bonding the second layer to the first layer to form a composite material (column 6, lines 53-55; column 8, lines 64-68).

The reference teaches shrinking the second layer to produce the structured composite material having greater three-dimensionality (column 7, lines 5-26), wherein the skilled artisan would have appreciated this greater three-dimensionality resulting from areas of the non-woven

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web, which are not bonded to the scrim, moving in a plane perpendicular to the composite material since shrinking of the scrim causes these un-bonded areas to further crepe or "puff out."

Since the present invention teaches the pore size gradient of the composite material resulting from the non-woven and film layers exhibiting this same behavior as a result of the shrinking step (p. 22, lines 5-18), the skilled artisan would have further appreciated that, upon shrinking, the composite material of Lorenzi would have a pore size gradient in the z-direction wherein movement of the non-woven forms a plurality of fiber loop pores and the scrim forms a plurality of pores smaller than the fiber loop pores.

Regarding claim 2, Lorenzi teaches the non-woven comprising propylene (column 4, lines 61-62) and the scrim comprising an ethylene-propylene copolymer (column 6, lines 64-66).

Regarding claim 3, Lorenzi teaches the scrim shrinking relative to the non-woven (column 7, lines 14-17).

Regarding claim 4, Lorenzi teaches heating to shrink (column 7, lines 12-17).

With respect to claim 6, all the limitations were addressed with respect to claim 1, except creping the non-woven and stabilizing the crepe by bonding the second layer to the non-woven. Lorenzi teaches the non-woven being creped and then bonding the creped non-woven to the scrim (column 6, lines 53-55).

Regarding claim 7, Lorenzi teaches bonding the non-woven and scrim by thermal bonding (column 6, lines 53-55).

Regarding claim 8, Lorenzi teaches stretching the scrim before bonding it to the non-woven (column 6, lines 62-64).

With respect to claim 24, all the limitations were addressed with respect to claims 1 and 4.

Regarding claim 25, the skilled artisan would have appreciated that the first layer would shrink to some degree – be it appreciable or not; it being noted once again that Lorenzi teaches the non-woven being made from the same materials as the non-woven in the present invention.

Regarding claim 26, Lorenzi teaches the scrim shrinking relative to the non-woven (column 7, lines 14-17).

With respect to claim 27, all the limitations were addressed with respect to claims 4 and 6.

Regarding claim 28, Lorenzi teaches stretching the scrim before bonding it to the non-woven (column 6, lines 62-64).

Regarding claim 29, Lorenzi teaches pattern embossing the first layer to form thermal bonds which extend through the first layer (column 8, line 64 – column 9, line 7).

8. Claims 1, 4-8, and 24-29 stand rejected under 35 U.S.C. 102(b) as being anticipated by Yoshioka (US 3925127; of record), as set forth in paragraph 6 of the previous office action.

**It is noted this rejection addresses the claims without giving weight to the limitations identified as new matter in paragraph 5 above.*

9. Claims 1, 4, and 24-26 stand rejected under 35 U.S.C. 102(b) as being anticipated by Srinivasan (EP 687757; of record), as set forth in paragraph 7 of the previous office action.

**It is noted this rejection addresses the claims without giving weight to the limitations identified as new matter in paragraph 5 above.*

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 5 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenzi et al. as applied above.

Regarding claim 5, Lorenzi teaches creping the non-woven before bonding the scrim thereto but is silent as to creping the composite material. However, Lorenzi teaches it being known in the art to crepe individual substrates and combine them with other creped or un-creped substrates or to crepe multi-layered articles (column 17, lines 56-63). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to crepe the composite material of Lorenzi because such is known in the art, as taught by Lorenzi, wherein creping provides bulk, softness, enhanced ability to remove dirt, enhanced transport of air and water, compressive resiliency, and a visually pleasing appearance (Lorenzi; column 17, lines 56-60).

Regarding claims 9-10, selection of the amount of stretching would have been within purview of the skilled artisan depending on the desired amount of shrinkage to be imparted thereto.

12. Claims 2-3 and 9-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshioka as applied in paragraph 8 above, and as set forth in paragraph 12 of the previous office action.

13. Claims 2-3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Srinivisan et al. as applied in paragraph 9 above, and as set forth in paragraph 13 of the previous office action.

Response to Arguments

14. Applicant's arguments filed 8/23/04 have been fully considered but they are not persuasive.

15. On page 14 of the arguments, Applicant argues that Yoshioka fails to teach or suggest the limitations relating to the composite having a pore size gradient, as now claimed in claims 1, 5-6, 24 and 27.

The examiner points out that Yoshioka was not used to reject these new limitations, as set forth in paragraph 8 above.

16. On page 14 of the Arguments, Applicant argues that Yoshioka teaches a bulky paper that may absorb fluids but the paper does not accommodate passage of fluids through it.

The examiner points out that Yoshioka teaches the composite being used for a variety of articles including towels, sanitary tissues, etc. (column 1, lines 10-15) wherein the skilled artisan would have appreciated such articles absorbing fluids until they become saturated and then passing fluids through the article since saturation prevents anymore fluid from being absorbed. Furthermore, the composite comprises crepe paper bonded to both sides of a perforated film (column 2, lines 20-21; column 5, lines 61-65) wherein the skilled artisan would have readily appreciated both crepe paper and perforated film being capable of passing fluids therethrough; it being noted that a fluid can be a liquid or a gas (Webster's Dictionary).

17. On pages 15-16, Applicant argues that Srinivisan fails to teach or suggest the limitations relating to the composite having a pore size gradient, as now claimed in claims 1 and 24.

The examiner points out that Srinivisan was not used to reject these new limitations, as set forth in paragraph 9 above.

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18. On pages 16-18, Applicant argues the Thomas and Bevins references.

It is noted that these references are no longer being used as prior art for the reasons set forth in paragraphs 2-3 above.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine R. Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jessica L. Rossi
Patent Examiner
Art Unit 1733